ANT SPECIES RICHNESS AROUND AMRAVATI CITY MAHARASHTRA, INDIA,

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Ants deserve special place in the study of ecology, including behavior, given their species richness, social habits & high densities contributing much of there animal biomes on earth (Gadagkar et.at. 1993). As ants can be studied virtually everywhere from forest interiors below ground, right up to the kitchen, we attempt there study to being to assess the ant species richness in variety of habitat around & in Amravati city. The prime objective of this study is to prepare a partial checklist of ants of Amravati & to compare and species richness between selected study sites. Eight study sites with different level & types of vegetation were selected for the study.

We employed “all out search” method for collection in month of June and July 2010. Ants were hand collected using a brush and forecep during day time for 6 hrs at such study site. Collected sample were preserved in 70% alcohol in Department of Zoology, Govt. Vidarbha Institute of Science & Humanities, Amravati.

We identified Ants up to the genus level by using Stemi DV4 Stereo microscope based on taxonomic keys of (Holldobles & Wilson, 1990; Bolton, 1994; Mathew & R.N. Tiwari, 2000).

During the present study a total of 34 species of 20 genera have been recognized from Amravati city representing five subfamilies namely Myrmicinae, Formicinae, Ponerinae, Dolichoderinae and Pseudomyrmicinae. Out of this subfamily Myrmicinae is the most abundant having 11 genera including the genus *Rhoptromyrmex. It* has been recorded first time in this region, followed by Formicinae having four genera having first time record of genus *Oecophylla*. Subfamily Ponerinae and Dolichoderinae were recorded only the two genera each; while the subfamily Pseudomyrmicinae where recorded very poorly with only one genera from G.V.I.S.H. campus.

Few ant genera such as *Crematogaster* and *Myrmicaria* of subfamily Myrmicinae, *Camponotus* and *Polyrhachis* of subfamily Formicinae and *Leptogenys* of subfamily Ponerinae were mostly found in all the habitats and most localities. While few genera are confined to few localities or habitat types, such as *Rhoptromyrmex* and *Oecophylla* recorded only from Pohara forests. Genus *Tetraponera* of subfamily Pseudomyrmicinae collected from the tree trunk of Azadirakhta indica in the G.V.I.S.H. campus.

Comparison of ant species distribution between the different study sites revealed that ant species richness was highest at Pohara forest with 28 species & lowest of 9 species around urban area. Relatively high ant species richness was recorded at all the study site such as Agriculture field, Tree plantation area, Wadali & Chhatri Garden. On other hand ant species richness was low around urban houses as compared to rural houses because of little or no vegetation and high levels of disturbance. The tree plantation site, roads & pavement showed higher number of ant species as compared to around urban area probably because of the road side richness with tree plantation.

From this study we conclude that due to availability of food and shelter, richness of ant species increases in forest and tree plantation area. The number ant species declines in low vegetative area including urban. It is possible to study ecology and biodiversity of living faunas by the habitat study of ant. The environs of Amravati city are rich in Ant fauna which deserve further study.

Table 1 Checklist of the Ant Fauna of Amravati

Subfamily	**Genus**	**No. of Species Found**
Formicinae	*1. Camponotus*	3
	2. Oecophylla	1
	3. Paratrechina	1
	4. Polyrchis	2
Myrmicinae	*5. Rhoptromyrmex*	1
	6. Triglyphothtrix	1
	7. Aphaenogaster	2
	8. Monomorium	1
	9. Myrmicaria	1
	10. Cardiocondyla	1
	11. Pheidole	3
	12. Crematogaster	7
	13. Pheidologeton	1
	14. Solenopsis	2
	15. Tetramorium	1
Ponerinae	*16. Leptogenys*	2
	17. Pachycondyla	1
Dolichoderinae	*18. Iridomyrmex*	1
	19. Tapinoma	1
Pseudomyrmicinae	*20. Tetraponera*	1
Total	**20**	**34**

Table 2 Ant Fauna of the study site

Study site	**No. of subfamily**	**No. of Genera**	**No. of species**

Pohara Forest	4	13	28
G.V.I.S.H Campus	3	8	17
Wadali & Chhatri lake	3	12	19
Agriculture Field	4	12	23
Tree Plantation	4	13	25
Urban Houses	3	5	9
Rural Houses	3	7	16
Roads and Pavements	4	10	18

*Sampling hours per site= 6 hrs./day

AKNWOLELDEMENT

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REFERENCES

1) Bolton, B. 1994. Identification guide to the ant genera of the world. Cambridge, Mass.: Harvard University Press, 222 pp.
2) Gadagkar, R., Chandrashekara, K. & Nair, P. 1993.Ant species richness in some selected localities in Western Ghats, India. Hexapoda 5(2):79-94.
3) Hölldobler, B.; Wilson, E. O. 1990. The ants. Cambridge, Mass.: Harvard University Press, xii + 732 pp.
4) Mathew, R. and R. N. Tiwari. 2000. Insects: Hymenoptera: Formicidae State fauna Series 4: Fauna of Meghalaya **7**: 251-409.